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Abstract

Data collected on the number of resident patients, total admissions, net releases, and deaths in public institutions for the mentally retarded in the United States from 1950 to 1968 are given. Tables present information on trends of patient movement and administrative data from 1963 to 1968; similar information is presented for each state from 1967 to 1968. A description of the summarized data and the limitations of the material are provided. [Not available in hard copy due to marginal legibility of original document]. (WW)

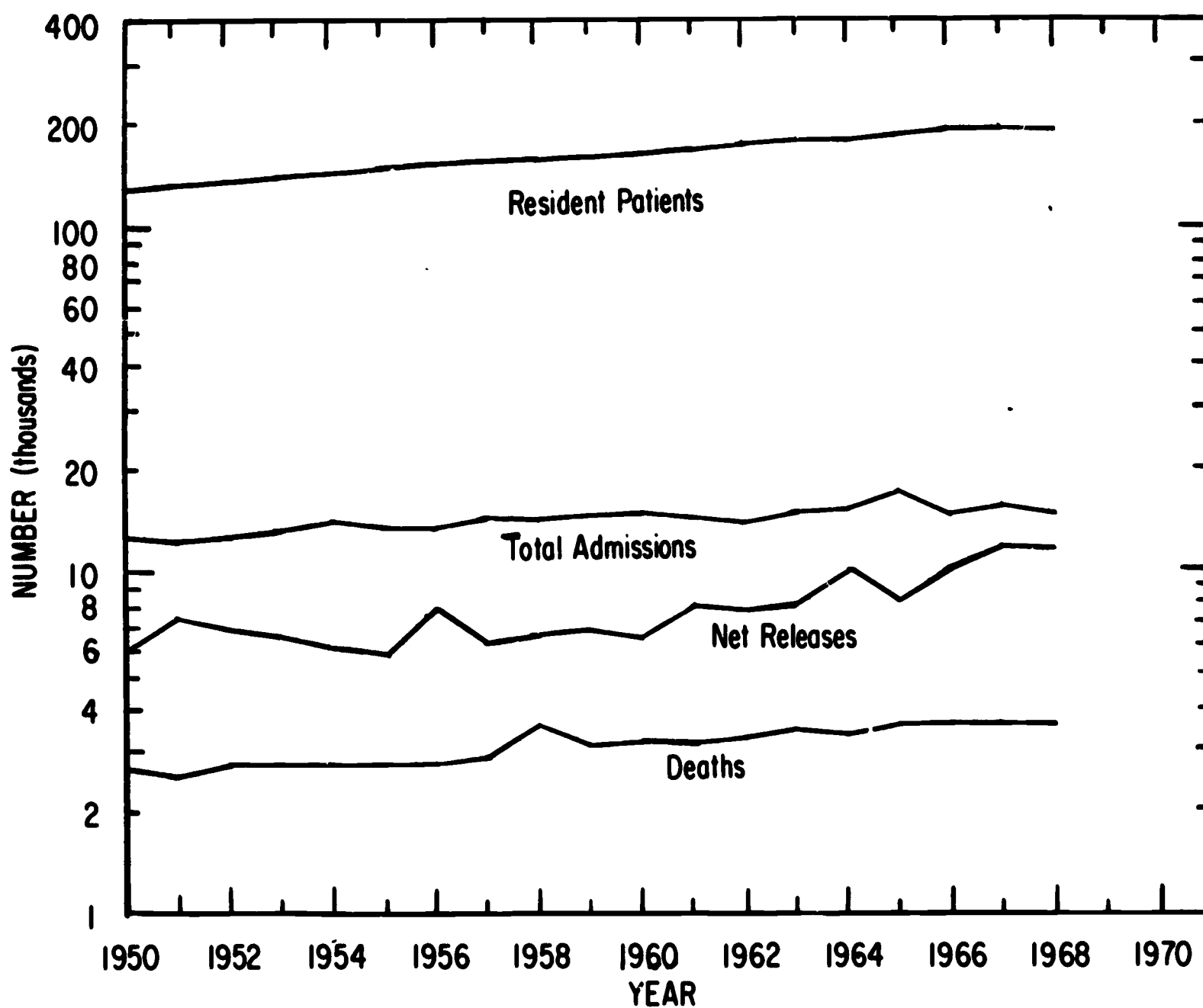
MENTAL HEALTH STATISTICS

CURRENT FACILITY REPORTS

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service, National Institute of Mental Health

PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA
PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED
UNITED STATES

July 1, 1967 - June 30, 1968



NUMBER OF RESIDENT PATIENTS, TOTAL ADMISSIONS, NET RELEASES, AND DEATHS,
PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED, UNITED STATES, 1950-1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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I. INTRODUCTION

Since the passage of the National Mental Health Act by Congress in 1946, the National Institute of Mental Health has been responsible for collecting and publishing data on the hospitalized mentally retarded in the United States -- data necessary to answer requests from members of Congress, State legislators, project planners, administrators and other persons interested in the field of mental retardation. These data are extremely useful, for example, in planning for facilities and services, research and training, and legislation and financing. In an effort to provide current data, the provisional survey statistics tabulated in these Mental Health Statistics-Current Facility Reports (Series MHB-1) are collected and published annually for certain patient movement and administrative categories by State, for the Public Institutions for the Mentally Retarded (referred to as "Institutions" in this report). Similar data are published for the State and County Mental Hospitals (MHB-H) and Outpatient Psychiatric Clinics (MHB-J).

As the data are provisional, they are subject to some change. Data in greater detail on first admissions and resident patients by age, sex, medical classification and measured intelligence appear in other NIMH publications. Similar data for patients in the private and public mental hospitals, general

hospitals with psychiatric services and outpatient psychiatric clinics are available in other publications of NIMH.

Trends in certain patient movement categories for Institutions are depicted graphically for the years 1950-1968 on the cover. These trends, as well as others, are indicated numerically for the years 1963 - 1968 in Table 1 and include estimates for under-reporting wherever possible. These totals which are the most complete available, supersede totals published in prior reports. Also shown in Table 1 are the same data expressed in index numbers with 1963 used as the base year. Thus, percent change since the base period can be read directly from Table 1, with increases being numbers greater than 100 and decreases being numbers less than 100. For instance, the 1964 index number for admissions is 102.5. This means that admissions in that year were 2.5 percent greater than base period admissions. An index number shows the percent change between a specific year and the base period. It does not indicate percent change between years other than the base year. Table 2 shows detailed patient movement and administrative data for each State. Definitions of terms used in this report are given in Section III.

II. HIGHLIGHTS

The number of resident patients in the Public Institutions for the Mentally Retarded decreased slightly in 1968. This represents a change in the trend of small but steady increases in the resident population since 1950. This decrease was in spite of the fact that the number of Institutions increased in 1968 to 170, an increase of five over the number existing in 1967.

The annual number of total admissions over the years has fluctuated between 13 and 17 thousand. In 1968, there were 14,688 total admissions, a decrease of about seven percent over the 1967 figure. This resulted in a rate of 7.5 per 100,000 population, as opposed to 7.8 in 1966.

The number of net releases has gradually increased since 1960 except for 1965, the year in which there was a large increase in total admissions. The number of net releases for 1968, 11,675, is about the same as the number for 1967. The rate per 1,000 average resident patients was 60.5, about the same rate as in 1967.

The annual number of deaths in Institutions has remained fairly constant since 1958, as has the death rate per 1,000 average resident patients. This rate has been about 19 for each of the last ten years, except for 1958, when the rate rose to 23 per 1,000 average resident patients.

There are now almost 101,000 full-time personnel caring for the mentally retarded in these Institutions. The ratio of resident patients to personnel has consistently reflected more personnel per patient over the years, and in 1968, there were under two resident patients for each full-time employee. In 1960, this ratio was three to one.

The maintenance expenditures for the care of patients have also greatly increased -- the figure of approximately \$673,000,000 in 1968 is almost three times the amount spent in 1960. Converting these data into ratios, \$8.87 was spent each day per patient under treatment in 1968, as compared with \$4.25 in 1960, a 109 percent increase over this period.

TABLE 1
RECENT TRENDS OF PATIENT MOVEMENT AND ADMINISTRATIVE DATA, PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED
UNITED STATES, 1963 - 1968*

Item	1963	1964	1965	1966	1967	1968
All Admissions	14,909	15,276	17,300	14,998	15,714	14,688
Net Releases	8,156	9,292	7,993	9,268	11,665	11,675
Deaths in Institutions	3,498	3,384	3,583	3,601	3,635	3,614
Resident Patients End of Year	176,516	179,599	187,273	191,987	193,188	192,520
Personnel (full time) at End of Year	69,494	74,128	79,056	88,974	94,900	100,804
Maintenance Expenditures Per Resident Patient Per Year	\$353,574.833	\$396,588.263	\$441,714.654	\$505,141.941	\$576,620.954	\$672,735.697
Per Day	1,984.00	2,188.77	2,334.99	2,615.30	2,965.33	3,471.99
Per Patient under Treatment Per Year	5.44	5.98	6.40	7.17	8.12	9.49
Per Day	1,879.43	2,062.61	2,221.36	2,447.27	2,774.10	3,244.98
	5.13	5.64	6.09	6.70	7.60	8.87

INDEX NUMBERS

All Admissions	100.0	102.5	116.0	100.6	105.4	98.5
Net Releases	100.0	113.9	98.0	113.6	143.0	143.1
Deaths in Institutions	100.0	96.7	102.4	102.9	103.9	103.3
Resident Patients End of Year	100.0	101.7	106.1	108.8	109.4	109.1
Personnel (full time) at End of Year	100.0	106.7	113.8	128.0	136.6	145.1
Maintenance Expenditures Per Resident Patient Per Year	100.0	112.2	124.9	142.3	163.1	190.3
Per Day	100.0	110.3	117.7	131.8	149.5	175.0
Per Patient under Treatment Per Year	100.0	109.9	117.6	131.8	149.3	174.4
Per Day	100.0	109.7	118.2	130.2	143.6	172.7
	100.0	109.5	118.3	130.1	147.6	172.2

*These data include estimates for underreporting wherever possible.

TABLE 2 (Continued)

PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA: UNITED STATES, JULY 1, 1967 - JUNE 30, 1968
PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

PATIENT MOVEMENT RATIOS

State	Rate Per 100,000 Civilian Population ^{16/}		Rate Per 1,000 Average Resident Patients ^{17/}			Net Releases per 1,000 Total Admission
	Total Admissions	Resident Patients End of Year	Total Admissions	Net Releases Alive from Institution	Deaths in Institution	
United States ^{1/}						
Alabama	2.0	66.4	29.8	22.2	11.1	742.9
Alaska	15.0	39.5	423.5	152.9	11.8	361.1
Arizona	5.3	60.3	92.5	-17.0	9.6	-18.4
Arkansas	12.1	42.8	307.5	122.0	7.6	396.7
California ^{2/}	7.7	70.9	107.4	77.0	25.5	717.0
Colorado	9.7	121.7	79.7	50.2	15.8	630.2
Connecticut	19.8	141.0	140.3	118.0	9.0	841.1
Delaware	4.0	112.0	34.8	81.1	9.9	2,333.3
District of Col.	12.3	165.6	75.0	38.0	11.6	546.4
Florida	10.3	85.1	125.9	3.3	21.6	25.9
Georgia	5.1	38.0	129.9	169.3	14.9	1,304.0
Hawaii	6.0	110.5	53.0	48.1	29.6	907.0
Idaho	26.7	99.9	268.7	235.6	20.1	877.0
Illinois ^{4/}	2.3	83.7	27.3	42.2	24.7	1,547.2
Indiana	1.7	73.9	22.0	36.7	17.9	1,662.8
Iowa	5.0	61.3	76.8	159.3	14.7	2,073.5
Kansas	7.5	86.6	87.6	58.9	14.3	672.5
Kentucky	5.2	34.3	151.3	107.7	23.2	711.7
Louisiana	16.4	75.3	232.6	57.1	19.8	745.4
Maine ^{5/}	5.4	94.2	55.3	102.1	17.0	1,846.2
Maryland	8.1	86.4	93.3	48.6	27.3	520.4
Massachusetts	5.9	147.3	39.2	65.7	20.5	1,677.1
Michigan	7.8	148.4	52.1	50.5	16.6	970.5
Minnesota ^{6/}	6.7	143.3	44.6	117.0	14.7	2,625.5
Mississippi	6.0	58.4	103.3	66.2	25.3	640.3
Missouri ^{7/}	20.1	57.3	349.4	323.0	21.7	924.7
Montana	2.6	137.8	18.6	63.0	4.1	3,388.9
Nebraska	6.3	155.1	39.6	77.9	20.2	1,966.7
New Hampshire	9.5	150.9	64.2	0.0	15.6	0.0
New Jersey	4.4	95.5	45.6	23.1	15.5	506.6
New Mexico	9.6	76.1	131.7	35.7	11.0	270.8
New York ^{8/}	7.6	152.9	49.3	40.1	21.9	814.6
North Carolina	9.5	92.8	104.0	53.5	14.4	514.7
North Dakota	13.7	220.3	62.4	34.1	26.0	547.6
Ohio ^{9/}	6.3	90.8	68.7	64.0	20.8	930.8
Oklahoma	10.0	80.7	125.7	91.7	10.1	729.8
Oregon	9.1	147.6	61.6	35.4	14.6	574.6
Pennsylvania ^{10/}	3.6	99.1	35.7	38.7	16.9	1,083.7
Rhode Island	5.8	97.2	58.4	84.8	9.2	1,451.0
South Carolina	23.1	126.5	191.9	67.5	1.1	351.7
South Dakota	12.3	189.9	64.9	69.7	15.2	1,074.1
Tennessee ^{11/}	5.3	57.5	94.0	33.3	21.6	354.1
Texas ^{12/}	7.0	93.7	73.8	71.3	16.0	965.4
Utah	7.2	111.0	66.0	14.3	15.2	216.2
Vermont	13.1	158.1	83.5	42.5	15.2	509.1
Virginia	7.4	81.3	92.4	40.2	18.7	435.6
Washington ^{13/}	7.8	126.1	61.6	37.7	16.9	612.9
West Virginia	1.7	24.5	68.3	92.5	22.0	1,354.8
Wisconsin	8.1	86.9	92.5	81.0	21.5	876.5
Wyoming	8.0	208.0	38.0	53.2	12.2	1,400.0

Note: Refer to page 7 for footnotes

TABLE 2 (Continued)

PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA: UNITED STATES, JULY 1, 1967 - JUNE 30, 1968

PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

PERSONNEL AND FINANCIAL DATA

State	Average Daily Resident Patient Population	Patients under Treatment	Total Full-time Personnel End of Year	Maintenance Expenditures		
				Total Amount	Per Resident Patient ^{14/}	Per Patient under Treatment ^{15/}
United States ^{1/}	193,690	207,809	100,804	\$672,735,697	\$9.49	\$8.87
Alabama	2,262	2,421	730	\$4,171,266	\$5.04	\$4.71
Alaska	94	110	94	1,118,500*	32.51*	27.78*
Arizona	907	981	465	2,164,216	6.52	6.03
Arkansas	619	959	569	2,682,578*	11.84*	7.64*
California ^{2/}	13,138	14,721	6,523	66,285,526*	13.79*	12.30*
Colorado	2,411	2,583	1,501	8,795,635*	9.97*	9.30*
Connecticut	4,129	4,678	2,100	16,513,966	10.93	9.65
Delaware	596	642	371	2,026,673	9.29	8.63
District of Col.	1,230	1,376	366	3,475,000	7.72	6.90
Florida	5,112	5,278	4,303	21,076,104	11.26	10.91
Georgia	1,642	2,022	1,145	7,495,334	12.47	10.13
Hawaii	790	864	358	2,882,133	9.97	9.11
Idaho	706	878	350	2,098,113	8.12	6.53
Illinois ^{4/}	9,383	9,758	5,661	39,323,248	11.45	11.01
Indiana	4,031	4,050	2,518	15,509,694	10.51	10.46
Iowa	1,894	1,992	1,558	8,449,790	12.19	11.59
Kansas	1,994	2,110	1,606	9,824,294	13.46	12.72
Kentucky	1,083	1,229	678	3,941,871	9.94	8.76
Louisiana	2,681*	2,973	2,149	10,686,845	10.89*	9.82
Maine ^{5/}	902	1,022	521	3,502,226*	10.61*	9.36*
Maryland	3,089	3,417	1,485	10,565,374	9.35	8.45
Massachusetts	8,298	8,653	3,495	28,392,634	9.35	8.97
Michigan ^{6/}	12,610 *	13,818	6,462 *	49,214,396 *	10.66 *	9.73 *
Minnesota	5,265	5,933	2,582	17,513,475	9.14	8.11
Mississippi	1,277	1,476	444	1,772,795	3.79	3.28
Missouri ^{7/}	2,703	3,532	1,691	9,374,827 *	8.99*	7.10*
Montana	924	1,009	318	2,841,619	8.40	7.69
Nebraska	2,265	2,428	758	3,893,527	4.70	4.38
New Hampshire	1,006	1,069	433	2,585,159	7.02	6.61
New Jersey	6,682	6,944	3,444	22,009,854	9.00	8.66
New Mexico	711	794	603	3,146,531	12.09	10.82
New York ^{8/}	27,487	29,358	13,399	87,717,883 *	8.72 *	8.31 *
North Carolina	4,712	4,970	2,684	15,166,104	8.79	8.34
North Dakota	1,480	1,429	688	3,417,232	6.31	6.53
Ohio ^{9/}	9,853	10,419	3,716*	25,076,384	7.11	6.72
Oklahoma	2,110	2,197	1,413	8,143,290	10.54	10.13
Oregon	3,032	3,104	1,295	10,003,488	9.01	8.81
Pennsylvania ^{10/}	12,172	12,242	6,221	41,643,644	9.35	9.29
Rhode Island	882	939	514	4,551,561	14.10	13.24
South Carolina	3,288	3,549	1,192	2,957,643	2.46	2.28
South Dakota	1,255	1,342	478	2,941,992	6.40	5.99
Tennessee ^{11/}	2,240	2,388	1,439	6,842,594	8.35	7.83
Texas ^{12/}	10,470	10,992	4,814	26,717,532	6.97	6.64
Utah	1,015	1,175	439	2,538,148	6.83	5.90
Vermont	658	705	278	1,902,580	7.90	7.37
Virginia	3,680	3,795	1,393	8,040,758	5.97	5.79
Washington ^{13/}	4,151	4,263	1,963	17,011,052	10.79	10.39
West Virginia	454*	495	389	1,822,423	10.97	10.06
Wisconsin	3,707	4,035	2,896	21,139,000*	15.58*	14.31*
Wyoming	610	692	312	1,769,186	7.92	6.99

Note: Refer to page 7 for footnotes

TABLE 2 (Continued)

PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA: UNITED STATES, JULY 1, 1967 - JUNE 30, 1968

PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

PATIENT MOVEMENT DATA

State	Number of Institutions	Resident Patients Beginning of Year	Admissions (excluding transfers)			Net Releases Alive from Institutions	Deaths in Institutions	Resident Patients End of Year
			Total	First Admissions	Readmissions			
United States ^{1/}	170	193,121	14,688	12,359	2,057	11,675	3,614	192,520
Alabama	1	2,351	70	64	6	52	26	2,343
Alaska	1	74	36	31	5	13	1	96
Arizona	1	894	87	85	2	-16	9	988
Arkansas	1	717	242	229	13	96	6	857
California	8	13,290	1,431	1,246	185	1,026	340	13,355
Colorado	3	2,391	192	170	22	121	38	2,424
Connecticut	5	4,099	579	331	248	487	37	4,154
Delaware	1	621	21	17	4	49	6	587
District of Col.	1	1,279	97	75	22	53	15	1,308
Florida	6	4,660	618	614	4	16	106	5,156
Georgia	1	1,795	227	152	75	296	26	1,700
Hawaii	1	821	43	41	2	39	24	801
Idaho	1	691	187	---	---	164	14	700
Illinois ^{4/}	6	9,504	254	202	52	393	230	9,135
Indiana	3	3,964	86	67*	19*	143	70	3,837
Iowa	2	1,856	136	109	27	282	26	1,684
Kansas	3	1,939	171	124	47	115	28	1,967
Kentucky	2	1,046	163	119	44	116	25	1,088
Louisiana	5	2,374	599	373*	226*	147	51	2,775
Maine ^{5/}	1	970	52	42	10	96	16	910
Maryland	2	3,123	294	244	50	153	86	3,178
Massachusetts	8	8,334	319	301	18	535	167	7,951
Michigan	10	13,139	679	658	21	659	217	12,942
Minnesota ^{6/}	5	5,690	243	217	26	638	80	5,215
Mississippi	1	1,337	139	135	4	89	34	1,353
Missouri ^{7/}	8	2,616	916	847	69	847	57	2,628
Montana	2	991	18	10	8	61	4	944
Nebraska	1	2,338	90	89	1	177	46	2,205
Nevada	1	1,003	66	64	2	0	16	1,053
New Hampshire	1	1,003	66	64	2	0	16	1,053
New Jersey	6	6,640	304	277	27	154	103	6,687
New Mexico	1	698	96	92	4	26	8	760
New York ^{8/}	17	27,988	1,370	1,052*	233*	1,116	610	27,632
North Carolina	4	4,494	476	429	47	245	66	4,659
North Dakota	2	1,345	84	84	0	46	35	1,348
Ohio ^{9/}	6	9,754	665	614	51	619	201	9,599
Oklahoma	3	1,949	248	230	18	181	20	1,996
Oregon	3	2,923	181	156	25	104	43	2,957
Pennsylvania ^{10/}	9	11,824	418	286	132	453	198	11,591
Rhode Island	1	888	51	44	7	74	8	857
South Carolina	3	2,949	600	595*	5*	211	33	3,305
South Dakota	2	1,261	81	51	30	87	19	1,236
Tennessee ^{11/}	2	2,179	209	193	16	74	48	2,266
Texas ^{12/}	6	10,241	751	583	168	725	163	10,104
Utah	1	1,101	74	68	6	16	17	1,142
Vermont	1	650	55	52	3	28	10	667
Virginia	2	3,469	326	308	18	142	66	3,587
Washington ^{13/}	5	4,015	248	238	10	152	68	4,043
West Virginia	1	464	31	30	1	42	10	443
Wisconsin	3	3,695	340	298	42	298	79	3,658
Wyoming	1	667	25	23	2	35	8	649

Refer to page 7 for footnotes

Footnotes - Table 2

- 1/ United States totals do not include Nevada since Nevada has no public institutions for the mentally retarded.
- 2/ Excludes Idaho and data for two institutions in New York.
- 3/ California: Personnel data for Devitt State Hospital and Patton State are unavailable.
- 4/ Illinois: Data for maintenance expenditures includes the cost for outpatients; therefore, this is an overestimate. Resident patient data excludes patients who were on "Home Visits" of any duration.
- 5/ Maine: Pineland Hospital and Training Center is a dual purpose facility. Only data pertaining to the mentally retarded are reported here.
- 6/ Minnesota: Maintenance expenditure data for Shakopee Home for Children are unavailable. Therefore, the maintenance expenditure ratios for Minnesota excludes 28 average daily patients and 31 patients under treatment in this facility.
- 7/ Missouri: Three new institutions opened this year. In computing daily maintenance expenditures for Missouri, 51 average daily patients, 173 patients under treatment and \$644,174 maintenance expenditures in these three institutions were excluded.
- 8/ New York: Data reported for the fiscal year ending March 31, 1968. First admissions and readmissions will not add to total admissions since data for these categories are not available for Albion and Beacon State Training Schools. Data on personnel, maintenance expenditures and average daily population excludes Albion and Beacon State Training School. Therefore, in computing daily expenditures per patient under treatment, 519 patients under treatment should be excluded from the denominator.
- 9/ Ohio: Includes data for the mentally retarded patients at the following dual purpose institutions: Apple Creek State Hospital, Cambridge State Hospital and Springview Hospital. Does not include personnel and maintenance expenditure data for Cambridge State Hospital and Springview Hospital; therefore, the maintenance expenditure ratios for Ohio exclude 217 patients under treatment and 220 average daily resident patients. At Apple Creek State Hospital, although patient data pertain to the mentally retarded, personnel and maintenance data pertain to all patients.
- 10/ Pennsylvania: Western State School and Hospital is a dual purpose facility. Only data pertaining to the mentally retarded patients are reported here. However, the data for personnel and maintenance expenditures cover the cost of both the mentally ill and mentally retarded patients, and, therefore, are overestimates.
- 11/ Tennessee: Data for resident patients at the beginning and end of year and average daily resident patients includes partial hospitalization night care patients. Admission data for Greene Valley Hospital and School include 38 persons who became inpatients during the year, having previously been outpatients, or in partial hospitalization program in that institution.
- 12/ Texas: Data cover fiscal year ending August 31, 1968. This data excludes Richmond State School which opened in April 1968.
- 13/ Washington: One new institution opened this year. In computing daily expenditure ratios for Washington, 48 average daily resident patients and \$806,743 maintenance expenditures were excluded for this facility.
- 14/ Per resident patient maintenance expenditures are based on the average daily resident patient population of institutions reporting expenditures.
- 15/ Per patient under treatment maintenance expenditures are based on the patients under treatment (resident patients beginning of year plus total admissions) for institutions reporting expenditures.
- 16/ Admission and resident patient end of year rates are per 100,000 estimated civilian population. Sources: U. S. Bureau of the Census, Current Population Reports, Series P-25 No. 403, provisional estimate for July 1, 1968. (Civilian population for the State of Nevada has been subtracted from the U. S. civilian population since Nevada has no public institutions for the mentally retarded.)
- 17/ These rates are based on the average of the beginning and end of year resident patient populations.

Symbols used: * Indicates data which are estimates or include estimates.

--- Data not available

III. DESCRIPTION AND LIMITATIONS OF THE DATA

A. Patient Movement Data

The summary data presented in this report may be used to analyze the annual changes in year end populations of the Public Institutions in terms of three categories of patient movement (admissions, net releases, and deaths). These categories are defined as follows:

1. Admissions: This category includes first and readmissions. First Admissions are all patients admitted to a public Institution for the mentally retarded without a record of previous care, i.e., a record of an admission and a formal discharge, in either a public or private Institution anywhere. Thus, a patient coming into a public Institution for the mentally retarded from a hospital for mental disease would be considered a first admission. Readmissions are all patients admitted with a record of previous care in a public or private Institution.

2. Net Releases Alive from Institution. The concept of "net release alive from Institution" takes into account movement of patients into and out of the Institution since this quantity is the number of placements on extramural care plus direct discharges from the Institution less the number of returns from extramural care, all occurring during any one year. National data on placements and returns from extramural care are not available but net releases may be computed from less detailed movement data as:

$$\left[\begin{array}{c} \text{Net} \\ \text{Releases} \\ \text{Alive from} \\ \text{Institution} \end{array} \right] = \left[\begin{array}{c} \text{Resident} \\ \text{Patients} \\ \text{Beginning} \\ \text{of Year} \end{array} \right] + \left[\begin{array}{c} \text{All Admis-} \\ \text{sions} \\ \text{Excluding} \\ \text{Transfers} \end{array} \right] - \left[\begin{array}{c} \text{Deaths} \\ \text{in} \\ \text{Insti-} \\ \text{tution} \end{array} \right] - \left[\begin{array}{c} \text{Resident} \\ \text{Patients} \\ \text{End of} \\ \text{Year} \end{array} \right]$$

Interpretation of net releases alive from Institution should be made with caution. This quantity is the net number of releases alive from the Public Institutions in the State system and includes not only direct discharges to the community and placement on leave but also direct discharges to other inpatient facilities outside the State system such as public mental hospitals, boarding care homes, and public Institutions in other States. The number of net releases is used as a measure of movement out of the Institution rather than the total number of discharges because many discharges occur while patients are already outside the Institution on extramural care. The number of net releases may be considered an estimate of the number of effective releases from the Institution under the assumption that subtracting returns from leave during the year removes only the short term visits, leaves, and escapes and retains the effective releases; i.e., those from which

the patients did not return to the Institution within the time period covered.

3. Deaths in Institution: This category includes only deaths occurring to patients resident in the Institution and does not include deaths among patients on leave, even though these patients are still on the Institution books.

4. Patient Movement Ratios per 100,000 Civilian Population: The admission ratio measures the proportion of people coming under care during the year while the resident patient at end of year ratio measures the proportion of the population under care at one point in time.

5. Patient Movement Ratios per 1,000 Average Resident Patients: These ratios relate each of three movement categories: Total admissions, Net Releases, and Deaths, to the average resident population, thus providing indexes of the amount and type of patient movement activity that occurred during the year. It should be kept in mind that the ratios shown in this publication are based on totals and as such they have the limitations of totals. They are not standardized for such important variables as age, sex, medical classification, and years in the Institution. To illustrate how these ratios are descriptive of changes in resident patient populations, consider the following hypothetical examples:

Suppose that the resident patient populations in State A and State B each increased by three percent (or 30 per 1,000). Considering only these data gives a limited and potentially misleading view of patient movement activity. However, now suppose that the patient movement ratios are computed to be the following:

<u>Movement Category</u>	<u>State A</u>	<u>State B</u>
Admissions	99.3	162.7
Net Releases	79.9	144.0
Deaths	16.3	15.7

These ratios show that State B has much higher rates of patient movement into and out of the Institution than State A. While these ratios highlight areas of difference between the two States, conclusions based only on these ratios may be fallacious. The differences can be isolated further by analyzing the data in terms of the patient characteristics mentioned above (age, sex, medical classification and years in the Institution). Even at this point, one cannot evaluate the relative efficacy of the two public institutional programs since differences in patient movement ratios between States may also be attributable to a great many other factors, such as policies and laws controlling admissions and release,

the ways in which the public Institutions are utilized by the communities they serve, the types of patients admitted, the various treatment programs within the Institutions, and the availability of various community facilities that can serve as adjuncts or alternatives to institutionalization. Since the reasons for interstate differences in these movement ratios are complex and vary considerably from Institution to Institution within and between States, ratios constructed from gross movement data (i.e., State totals) cannot be used to measure the therapeutic effectiveness of various programs.

6. Ratio of Net Releases to 1,000 Admissions:
The ratio "net releases per 1,000 admissions" is a convenient index for summarizing the live net movement into and out of the Institution. For example, if the ratio is less than 100, there were more admissions than net releases. Note that this index does not relate net releases to admissions in the sense of a percent or rate because not all releases during a year derive from the admissions during that year. Some of these net releases occurred to patients with lengths of stay greater than one year, that is, patients admitted during some prior year.

B. Expenditure Ratios:

The expenditure per average daily resident patient has been the most commonly used ratio for comparing institution expenditures. Its major limitation is that it does not adequately take into account the number of admissions for which a large share of the expenditure is required. If the patient base is enlarged to include admissions during the year, the resulting sum is the best available estimate of patients under treatment during the year. This quantity is actually defined as:

$$\left[\begin{array}{l} \text{Patients} \\ \text{Under} \\ \text{Treatment} \end{array} \right] = \left[\begin{array}{l} \text{Resident} \\ \text{Patients} \\ \text{Beginning} \\ \text{of Year} \end{array} \right] + \left[\begin{array}{l} \text{All Admis-} \\ \text{sions} \\ \text{Excluding} \\ \text{Transfers} \end{array} \right] + \left[\begin{array}{l} \text{Returns from Leave} \\ \text{among Patients on} \\ \text{Leave Beginning of} \\ \text{Year} \end{array} \right]$$

The estimate, however, does not include the last term since these data are not available nationally.

The ratio of expenditures to patients under treatment appears to be a more realistic measure, but it does not solve the problem completely. While a larger share of the expenditures is required for the care of admissions, the index weights both admissions and resident patients equally.

C. Interstate Variation:

Considerable variation among the States in patient movement, personnel, and expenditure data is indicated in Table 2.

Actual numbers are not comparable among States since they do not take into account differences in size of population. Therefore, ratios have been computed for several data categories. For example, net releases and total admissions per 1,000 average resident patients show considerable variation, with net release rates ranging from -17 to 323. Rates of admission and resident patients at end of year per 100,000 civilian population also vary considerably from State to State. Considerable interstate variation is further illustrated by the range in expenditures per patient under treatment per day from a high of \$14.31 (excluding Alaska) to a low of \$2.28.

However, as has been emphasized in Sections A4-A6, comparison of State ratios, while serving to highlight areas of differences, are limited. More detailed classifications of movement categories by such variables as age, sex, medical classification and time on books are needed. Data on most of these variables as well as more detail on personnel and maintenance expenditures will be available in other NIMH publications. This detail will provide partial explanations of the gross differences noted in the above tables. Also, as mentioned previously, other factors such as policies and laws affecting admission and release of patients, other community treatment facilities, effectiveness of therapeutic programs, etc., must be evaluated to determine the extent of their influence on interstate variation.

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